

45. (New) The nucleic acid of claim 44, wherein the promoter is a tissue-specific promoter.

46. (New) The nucleic acid of claim 45, wherein the tissue-specific promoter preferentially directs transcription in guard cells.

47. (New) The nucleic acid of claim 46, wherein the tissue-specific promoter is a KAT1 promoter.

48. (New) The nucleic acid of claim 44, wherein the polynucleotide is at least 95% identical to SEQ ID NO:1.

49. (New) The nucleic acid of claim 44, wherein the polynucleotide is SEQ ID NO:1.

50. (New) A transgenic plant, comprising an expression cassette comprising a promoter operably linked to a polynucleotide that is at least 70% identical to SEQ ID NO:1 or is a subsequence of at least 30 nucleotides of SEQ ID NO:1, and having decreased turgor pressure in guard cells.

51. (New) The transgenic plant of claim 50, wherein the promoter is a tissue-specific promoter.

52. (New) The transgenic plant of claim 51, wherein the tissue-specific promoter preferentially directs transcription in guard cells.

53. (New) The transgenic plant of claim 52, wherein the tissue-specific promoter is a KAT1 promoter.

54. (New) The transgenic plant of claim 50, wherein the polynucleotide is at least 95% identical to SEQ ID NO:1.

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cont.

55. (New) The transgenic plant of claim 50, wherein the polynucleotide is SEQ ID NO:1.

56. (New) A method for producing a transgenic plant, comprising the step of introducing into the plant an isolated nucleic acid, which comprises an expression cassette comprising a tissue-specific promoter operably linked to a polynucleotide that is at least 70% identical to SEQ ID NO:1 or is a subsequence of at least 30 nucleotides of SEQ ID NO:1, wherein the tissue-specific promoter preferentially directs transcription of the polynucleotide in guard cells and thereby decreases turgor pressure in guard cells in the plant.

57. (New) The method of claim 56, wherein the tissue-specific promoter is a KAT1 promoter.

58. (New) The method of claim 56, wherein the nucleic acid is introduced into the plant through sexual cross.

59. (New) The method of claim 56, wherein the nucleic acid is introduced into the plant using *Agrobacterium*.

60. (New) The method of claim 56, wherein the polynucleotide is at least 95% identical to SEQ ID NO:1.

61. (New) The method of claim 56, wherein the polynucleotide is SEQ ID NO:1.

REMARKS

I. The Invention

The present invention is based, at least in part, on the discovery that the ABH1 gene plays an important role in the signaling of the phytohormone abscisic acid (ABA) in plants. ABA induces decreased turgor pressure in guard cells and hence stomatal closure in response to drought. Therefore, the present invention relates to the